



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/599,605

10/03/2006

Karl-Heinz Schmezer

605127

1531

30008 7590 08/10/2009  
GUDRUN E. HUCKETT DRAUDT  
SCHUBERTSTR. 15A  
WUPPERTAL, 42289  
GERMANY

EXAMINER

BOWES, STEPHEN M

ART UNIT

PAPER NUMBER

3657

MAIL DATE

DELIVERY MODE

08/10/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/599,605	<b>Applicant(s)</b> SCHMEZER, KARL-HEINZ	
	<b>Examiner</b> STEPHEN BOWES	<b>Art Unit</b> 3657	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 9-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 October 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Drawings***

1. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because reference numbers and labels are not neatly done. Replacing the reference numbers and labels alone would be sufficient. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 9-12 and 15-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Schmezer (EP 1,382,882).

As per claim 9, Schmezer discloses a compression-resistant drive chain (Abstract) for an adjusting device, the drive chain comprising: chain links (6, 7, Fig. 4); connecting plates (21) pivotably connecting the chain links to one another; wherein the chain links are comprised of swivel elements (6, 7) having bearing surfaces (8) that are at least partially complementary in a longitudinal chain direction and have sliding surfaces (G) that form at least over portions thereof an arc contour, respectively; a

Art Unit: 3657

sprocket wheel (5); thrust bolts (14) oriented transversely to the longitudinal chain direction, wherein the sprocket wheel acts through the thrust bolts on the chain links (14) and wherein the thrust bolts are arranged in a receptacle (14; Each bolt runs between parallel plates, resting on the respective concave arc contours on each one) between two of said swivel elements neighboring one another, respectively, wherein said receptacle is defined by said concave arc contours (8) of said sliding surfaces in that said concave, are arranged opposed to one another for receiving the thrust bolts, respectively; wherein an adjusting force of the sprocket wheel is introduced through the thrust bolts into the drive chain in such a way that the chain links are moved into a compression-resistant position and returned from the compression-resistant position (Fig. 1, 4).

As per claim 10, Schmezer discloses the compression-resistant drive chain according to claim 9, wherein the thrust bolts, in an advancing direction and in a return direction of the drive chain, each define a sliding surface pair (G, [0020]), wherein the thrust bolts each have a circumferential surface resting at least partially against one of said two opposed concave arc contours (8), and wherein the adjusting force of the sprocket wheel is reversible within the drive chain in said sliding surface pair (Fig. 1, 4).

As per claim 11, Schmezer discloses the compression-resistant drive chain according to claim 10, wherein the thrust bolts have ends connected by the connecting plates (21), wherein the swivel elements are arranged in pairs so as to form two parallel rows in the longitudinal chain direction (Fig. 13), wherein the sprocket wheel is placed

between the two rows of the swivel elements against at least one of the thrust bolts transversely to the longitudinal chain direction (Fig. 15, 24).

As per claim 12, Schmezer discloses the compression-resistant drive chain according to claim 10, wherein said two opposed concave arc contours provide a substantially wear-free and friction-free support for the thrust bolts, respectively ([0027]).

As per claim 15, Schmezer discloses the compression-resistant drive chain according to claim 10, wherein the bearing surfaces of the swivel elements are placed against one another in the longitudinal chain direction (Fig. 13) and have partial areas (G, Fig. 10; G', Fig. 11), respectively, that adjoin in a common plane said concave arc contours and have a complementary shape relative to one another (G, G'), which partial areas in the compression-resistant position of the drive chain are placed against one another as a positive-locking profile (Fig. 21).

As per claim 16, Schmezer discloses the compression-resistant drive chain according to claim 9, further comprising spacers (25, 25', Fig. 22) that connect the swivel elements in a direction transversely to the longitudinal chain direction.

4. Claims 9-10, 12, 15 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Belcher (US 1,995,112).

As per claim 9, Belcher discloses a compression-resistant drive chain (Page 1, col. 1, lines 1-3) for an adjusting device, the drive chain comprising: chain links (Fig. 2, 4); connecting plates (2) pivotably connecting the chain links to one another; wherein the chain links are comprised of swivel elements (5) having bearing surfaces (9) that are at least partially complementary in a longitudinal chain direction and have sliding

Art Unit: 3657

surfaces (6, 7) that form at least over portions thereof an arc contour, respectively; a sprocket wheel (Fig. 1); thrust bolts (3) oriented transversely to the longitudinal chain direction, wherein the sprocket wheel acts through the thrust bolts on the chain links (Fig. 5) and wherein the thrust bolts are arranged in a receptacle (17) between two of said swivel elements neighboring one another, respectively, wherein said receptacle is defined by said concave arc contours (6, 7) of said sliding surfaces in that said concave, are arranged opposed to one another for receiving the thrust bolts, respectively; wherein an adjusting force of the sprocket wheel is introduced through the thrust bolts into the drive chain in such a way that the chain links are moved into a compression-resistant position and returned from the compression-resistant position (The sprocket transmits force to the plates and the plates transmit force between them through the thrust bolts, Fig. 1).

As per claim 10, Belcher discloses the compression-resistant drive chain according to claim 9, wherein the thrust bolts, in an advancing direction and in a return direction of the drive chain, each define a sliding surface pair (Fig. 4), wherein the thrust bolts each have a circumferential surface resting at least partially against one of said two opposed concave arc contours (Fig. 4), and wherein the adjusting force of the sprocket wheel is reversible within the drive chain in said sliding surface pair (Fig. 4).

As per claim 12, Belcher discloses the compression-resistant drive chain according to claim 10, wherein said two opposed concave arc contours provide a substantially wear-free and friction-free support for the thrust bolts, respectively (Page 2, col. 2, lines 8-14).

As per claim 16, Belcher discloses the compression-resistant drive chain according to claim 9, further comprising spacers (1, 2, Fig. 6) that connect the swivel elements in a direction transversely to the longitudinal chain direction.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmezer (EP 1,382,882) in view of Springman (US 4,930,620).

As per claim 13, Schmezer discloses the compression-resistant drive chain according to claim 10. However, Schmezer fails to disclose sliding elements, matched to a shape of said concave arc contours, provided in the area of the sliding surface pair between the thrust bolts and the swivel elements, respectively. Springman discloses an article carrying member for a conveyor chain comprising disclose sliding elements (52, Fig. 2), matched to a shape of the arc contours, provided in the area of the sliding surface pair between the thrust bolts and the swivel elements, respectively (52). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the pins of Schmezer by enclosing them in split sleeves as taught by Springman in order to reduce friction.

As per claim 14, Schmezer and Springman disclose the compression-resistant drive chain according to claim 13. Springman further discloses wherein the sliding

Art Unit: 3657

elements are sleeve segments each having an inner circular arc-shaped wall surface placed onto the thrust bolts (52), respectively, and each having an outer U-shaped profile (52) comprising a basic arc placed against the arc contour and further comprising legs (52) placed laterally against the swivel elements.

7. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Belcher (US 1,995,112) in view of Springman (US 4,930,620).

As per claim 13, Belcher discloses the compression-resistant drive chain according to claim 10, however they fail to disclose sliding elements, matched to a shape of said concave arc contours, provided in the area of the sliding surface pair between the thrust bolts and the swivel elements, respectively. Springman discloses an article carrying member for a conveyor chain comprising disclose sliding elements (52, Fig. 2), matched to a shape of the arc contours, provided in the area of the sliding surface pair between the thrust bolts and the swivel elements, respectively (52). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the pins of Belcher by enclosing them in split sleeves as taught by Springman in order to reduce friction.

As per claim 14, Belcher and Springman disclose the compression-resistant drive chain according to claim 13. Springman further discloses wherein the sliding elements are sleeve segments each having an inner circular arc-shaped wall surface placed onto the thrust bolts (52), respectively, and each having an outer U-shaped profile (52) comprising a basic arc placed against the arc contour and further comprising legs (52) placed laterally against the swivel elements.



***Response to Arguments***

8. Applicant's arguments filed 4/23/2009 have been fully considered but they are not persuasive. Regarding applicant's arguments as to the placement and orientation of the thrust bolts and plates, each bolt runs over and between parallel plates, resting on the respective concave arc contours on each one. Applicant argues that "no receptacle formed between two neighboring swivel elements by concave arc contours that are arranged opposed to one another." Figure 5 of Schmezer shows a symmetrical drive chain, the plates of which are mirror opposites of one another over the working plane (E). The receptacle in which the bolts lay runs normal to the running direction of the chain. It is also noted that pivoting elements 7 and 7' have opposed concave surfaces, arranged opposite one another with thrust bolts placed in between them. These elements could also be considered neighboring swivel elements.

***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

Art Unit: 3657

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEPHEN BOWES whose telephone number is (571) 270-5787. The examiner can normally be reached on M-F 7:30am-5:00pm, alternating Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi can be reached on (571) 272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bradley T King/  
Primary Examiner, Art Unit 3657

/STEPHEN BOWES/  
Examiner, Art Unit 3657